1855MNRAS..15..223S

"In making such observations, it is requisite that a round opaque body be placed at a considerable distance from the observer, so as completely to intercept the body of the sun, and about $1\frac{1}{2}°$ of the heavens all around him; and every portion of the surrounding space, extending to at least 12 or 14 degrees in every direction, should then be carefully and frequently examined by good telescopes. The opaque circular board, or other object, in order effectually to intercept the rays of the sun, should be placed at a considerable distance beyond the object-end of the telescope, and and if any contrivance could be made to make it move along with the sun so much the better, so as to prevent any of the solar rays from entering the tube of the telescope. It would likewise be expedient that the object-glass of the telescope should be somewhat contracted. Such observations, if persevered in, would undoubtedly afford a chance of detecting any revolving body that might exist within such a limit. It is not at all improbable that a planet exists within the range of 36 millions of miles from the sun; and from many observations I have made on *Venus* when very near the sun I am persuaded that a body, though only half the size of *Mercury*, could easily be distinguished in daylight with a good telescope.

"*Broughty Ferry, Dundee, May* 31, 1855."

The King of Prussia has presented a Gold Medal to Lieut. Maury, U.S.N., on account of "the distinguished services which he has rendered to science and navigation by his labours in ascertaining the currents and depths of the ocean, and in determining the direction of the winds at different seasons and in different latitudes." This mark of distinction was also accompanied with the presentation of one of the gold medals struck in honour of the publication of Baron Humboldt's *Cosmos.*

The ephemeris of *Amphitrite* for 1855, published in the supplement to the *Nautical Almanac* for 1858, having been found to exhibit a large difference from observation, Mr. Hind has issued a printed circular containing a portion of M. Villarceau's ephemeris of the planet (*Comptes Rendus*, tom. xl. No. 5), adapted to the meridian of Greenwich. This reprint contains the apparent places of the planet from July 1 to September 30 of the current year.

Remarks on the Construction of Telescopes with Simple Cylindrical Glasses. By M. Sturm.

(*Communicated by Dr. Lee.*)

"I take the liberty of calling attention to the application of cylindrical lenses to the construction of telescopes, which are,

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as nearly as is possible, free from the defects of aberration: for the special purpose of grinding and centering these glasses I have constructed and patented a machine, and the glasses so ground and centered appear more perfect than those at present manufactured by hand. The defectiveness of the cylindrical glasses now in use is, I think, the reason why they have not been hitherto more used for scientific purposes. I have made a telescope, by way of experiment, with a cylindrical object-glass ground on my machine; the effect of which sufficiently shows the practicability of my method. Although I have at present but one cylinder in my grinding machine, it is, I think, demonstrable, that when I am enabled to construct the several cylinders of the different focal lengths and diameters, important advantages may accrue to the science; among which might be mentioned,—

"Firstly. Having the object-glass single, thus obviating the necessity of different kinds of glass, and the difficulty of procuring flint-glass of a large size free from imperfections.

"Secondly. Object-glasses could be produced of a diameter of from 20 to 24 inches.

"Thirdly. The magnifying power and the extent of field will be proportionately increased, and with equal precision and exactness.

"Fourthly. The time required for manufacturing such object-glasses is considerably less; and

"Fifthly. The cost is greatly diminished."

It may be as well to remind those who possess telescopes of sufficient optical power for the purpose, that it would be desirable to examine the planet *Venus* on the occasion of its approaching inferior conjunction, with the view of ascertaining whether it affords any indications of a twilight conformably to what has been asserted by some preceding observers. (See *Monthly Notices*, vol. xiv. p. 169.)

CONTENTS.

Page
Fellows elected 205
On the Computation of Double Star Orbits, by Capt. Jacob 205
Discovery of a New Comet, by Dr. Donati 209
On the Determination of Nutation, &c., by Mr. Main 210
Results of Observations made at the Durham Observatory, by Mr. Carrington 213
On the Determination of the Difference of Longitude of Greenwich and Cambridge, U.S. 215
Report of the Astronomer Royal to the Board of Visitors 216
Drawings of *Mars* and *Saturn*, by Capt. Jacob 219
Suggestions respecting the Origin of the Rotatory Movements of the Celestial Bodies, by Mr. Nasmyth 220
On the Celestial Day Observations, by Dr. Dick 222
Miscellaneous Items of Intelligence 223

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